

## RIVER STAGES AND FLOODS FOR AUGUST 1949

There were no major floods during August. The most important general flooding was that due to the heavy rains accompanying the tropical storm from the 26-28th in the Middle Atlantic States. Moderate floods resulted in North Carolina and southwestern Virginia.

*Atlantic Slope drainage.*—The drought that began in April in the Northeastern States continued unabated through August. According to reports from the Geological Survey ground-water levels were near record low in New England.

Scattered heavy showers (about 4 inches) early on the 15th caused flash flooding in the Harrisonburg, Va., area on a tributary of the North Fork of the Shenandoah. Major damage resulted from water backing into store buildings causing heavy stock damage. This same storm caused a moderate rise on the upper Rapidan River with slight damage due to light local overflows in the headwaters. Moderate rises occurred in the Rappahannock Basin in the headwaters in connection with the heavy rain induced by the passage of the tropical storm during the night of the 28-29th. Light rises occurred in the Potomac Basin. The tides in Washington, D. C., averaged about 1-3 feet above normal during the passage of the storm.

A rapid rise occurred in the James River to above bank-full stage at and below Bremono Bluff, Va., due to heavy thundershowers (4.1 inches) over the middle of the basin on the 14th and early 15th. At one time the river in the Bremono Bluff-Columbia reach was rising at a rate of slightly better than 2 feet per hour. Losses were small, consisting primarily of 300 feet of C. & O. R. R. track being washed out by the flooded Swan Creek at Warminster, Va., and of flood gates of the power company at Richmond becoming jammed and damaged. Flash floods occurred in the smaller streams in Nelson, Albemarle, Buckingham, and Surry Counties of Virginia.

Heavy rain (3 to 4 inches) occurred in eastern North Carolina, on the 28th due to the passage of the tropical storm causing sharp rises and heavy run-off in all rivers. Most of the rain occurred in from 1 to 2 hours. The Neuse River rose 11 feet in less than 24 hours at Neuse and Smithfield, N. C., and reached a stage of 7 feet above bank-full stage at the latter point on the 29th. The Cape Fear acted very much like the Neuse and registered a sharp rise at Fayetteville. Considerable crop damage occurred in the bottom lands along the Cape Fear and Neuse Rivers.

Heavy rains from the 16th to 19th caused slight flooding on the Edisto at Orangeburg, S. C. Heavy rains (3 to 4 inches) occurred again on the 28-29th over most of the drainage basins in South Carolina during the passage of the Florida hurricane causing light to moderate flooding in the main rivers and unusually high water in some small streams where the rainfall was heaviest. Most of the damage resulting was to crops.

The Ocmulgee River rose 10 feet at Macon, Ga., to a crest of 15 feet, 3 feet below flood stage due to the apparently heavy rains between reporting stations on the 16th.

*East Gulf of Mexico drainage.*—The Chattahoochee River rose 8 feet in 24 hours at Norcross, Ga., due to heavy rains in the headwaters on the 16th, rises downstream were light to very moderate.

Heavy thundershowers (1.85 inches) in the afternoon and night of the 1st resulted in light flooding on the Pearl River at Pearl River, La. The lower Pearl was already near bank-full stage before these showers so these additional amounts produced sufficient run-off to reverse the falling trend of the river and cause slight overflow for a

short period. The losses were negligible as the lumbering industry had not resumed activity since the flood the previous month at this point.

*Missouri Basin.*—Flooding during the month was confined to a slight overflow on the upper Republican River in southwestern Nebraska, near Cambridge. The overflow was due to rains averaging about 1 inch over the basin above Cambridge during the 24-hour period ending on the morning of the 17th, followed by an additional amount of 1.75 inches on the 18th. No significant losses resulted from the overflow.

*Ohio Basin.*—The New River rose to three quarters bank-full stage at Galax, Va., and above on the 29th due to rain from the tropical storm on the 28th. Some of the smaller creeks were out of their banks but no damage was caused.

This same storm caused flood conditions along the Swannanoa River at Asheville, N. C., along the Watauga at Sugar Grove, and along the French Broad River from Asheville upstream to and beyond Rosman, N. C. The rain averaged between 2 and 4 inches throughout the area with heavier amounts up to 6 inches.

*West Gulf of Mexico drainage.*—Heavy rains averaging 3 to 6 inches, falling west to northwest of Del Rio, Tex., during the early morning hours of the 8th caused a rapid rise in the Devil's River and Pecos River, both tributaries of the Rio Grande. The waters from these two rivers merging in the Rio Grande resulted in moderate flooding at Del Rio and slight flooding at Eagle Pass, Tex. Flooding was confined to low places and no damages resulted.

## FLOOD STAGE REPORT FOR AUGUST 1949

[All dates in August unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest <sup>1</sup>	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
James:	<i>Feet</i>			<i>Feet</i>	
Bremo Bluff, Va.....	19	15	15	21.7	15
Columbia, Va.....	18	15	15	21.9	15
State Farm, Va.....	12	16	16	14.5	16
Richmond, Va.....	8	16	16	8.3	16
Roanoke: Altavista, Va.....	10	29	30	16.3	29
Tar: Rocky Mount, N. C.....	9	30	31	9.3	30
Neuse:					
Neuse, N. C.....	14	29	31	15.3	30
Smithfield, N. C.....	13	29	( <sup>2</sup> )	19.0	31
Kinston, N. C.....	14	24	27	16.3	25
Cape Fear:					
Fayetteville, N. C.....	35	30	31	41.0	30
Lock No. 2, Elizabethtown, N. C.....	20	19	19	21.4	19
		30	( <sup>2</sup> )	30.0	31
Yadkin: Wilkesboro, N. C.....	14	29	( <sup>2</sup> )	17.1	29
Pee Dee:					
Cheraw, S. C.....	30	30	31	31.5	30
Pee Dee, S. C.....	19	24	( <sup>2</sup> )	21.9	Sept. 4
Saluda: Pelzer, S. C.....	6	28	31	7.5	29
Broad:					
Gaffney (near), S. C.....	10	28	30	12.4	29
Blairs, S. C.....	14	22	23	16.0	22
	19	29	31	25.0	30
Congaree: Columbia, S. C.....	19	29	31	22.4	30
Catawba: Catawba, N. C.....	8	28	31	18.2	29
Wateree: Camden, S. C.....	23	29	Sept. 1	28.0	30
Edisto:					
Orangeburg, S. C.....	8	20	24	8.6	22
		29	Sept. 4	10.3	30
Givhans Ferry, S. C.....	10	28	( <sup>2</sup> )	14.4	Sept. 4
EAST GULF OF MEXICO DRAINAGE					
Pearl: Pearl River, La.....	12	3	5	12.4	4
MISSISSIPPI SYSTEM					
Missouri Basin					
Republican: Cambridge, Nebr.....	5	17	19	5.7 6.5	17-18 18-19
Ohio Basin					
Watauga: Sugar Grove, N. C.....	9	28	28	11.1	28
Swannanoa: Biltmore, N. C.....	10.5	28	28	12.6	28
French Broad: Asheville, N. C.....	9	28	29	10.1	28
WEST GULF OF MEXICO DRAINAGE					
Rio Grande:					
Del Rio, Tex.....	15	8	8	20.5	8
Eagle Pass, Tex.....	16	9	9	16.0	9

<sup>1</sup> Provisional.

<sup>2</sup> Continued at end of month.